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1132 U.S. PTO  
09/25/01

11036 U.S. PTO  
09/25/01

Please type a plus sign (+) inside this box → ☐

PTO/SB/05 (03-01)  
Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	LEW 17,186-1
First Inventor	Powell
Title	Method for Growing Low Defect Single Crystal Heteroepitaxial Films
Express Mail Label No.	ET 116643955US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing)	
2. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.	
3. <input checked="" type="checkbox"/> Specification [Total Pages 80] (preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure	
4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 38]	
5. Oath or Declaration [Total Pages 2] a. <input checked="" type="checkbox"/> Newly executed (original or copy) Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) b. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b> Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).	
6. <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76	

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Form (CRF) b. Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper c. <input type="checkbox"/> Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))
10. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee) <input checked="" type="checkbox"/> Power of Attorney
11. <input type="checkbox"/> English Translation Document (if applicable)
12. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations
13. <input type="checkbox"/> Preliminary Amendment
14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. <input checked="" type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. <input type="checkbox"/> Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

<input type="checkbox"/> Continuation	<input type="checkbox"/> Divisional	<input type="checkbox"/> Continuation-in-part (CIP)	of prior application No.: .....
Prior application information.		Examiner .....	Group Art Unit: .....

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

<input checked="" type="checkbox"/> Customer Number or Bar Code Label	(Insert barcode label here)	or <input type="checkbox"/> Correspondence address below
Name	26311	
Address	PATENT TRADEMARK OFFICE	
City	State	Zip Code
Country	Telephone	Fax

Name (Print/Type)	Kent N. Stone	Registration No. (Attorney/Agent)	31,883
Signature	<i>Kent N. Stone</i>	Date	9/25/2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT

(\$ 1,326.00

## Complete if Known

Application Number

Filing Date

First Named Inventor

Powell

Examiner Name

Group Art Unit

Attorney Docket No.

LEW 17,186-1

## METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit  
Account  
Number  
Deposit  
Account  
Name

14-0116

NASA

- ☒ Charge Any Additional Fee Required  
Under 37 CFR 1.16 and 1.17

- ☐ Applicant claims small entity status  
See 37 CFR 1.27

2. ☐ Payment Enclosed:

☐ Check ☐ Credit card ☐ Money Order ☐ Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 710	201 355	Utility filing fee	710
106 320	206 160	Design filing fee	
107 490	207 245	Plant filing fee	
108 710	208 355	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$ 710

### 2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
52	-20** = 32	18	576
Independent Claims	1	-3** = 0	0
Multiple Dependent	None		0

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 80	202 40	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 80	209 40	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 576

\*\*or number previously paid, if greater, For Reissues, see above

## FEE CALCULATION (continued)

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for ex parte reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 390	216 195	Extension for reply within second month	
117 890	217 445	Extension for reply within third month	
118 1,390	218 695	Extension for reply within fourth month	
128 1,890	228 945	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,240	241 620	Petition to revive - unintentional	
142 1,240	242 620	Utility issue fee (or reissue)	
143 440	243 220	Design issue fee	
144 600	244 300	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties) x1	40
146 710	246 355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710	249 355	For each additional invention to be examined (37 CFR § 1.129(b))	
179 710	279 355	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 40

## SUBMITTED BY

Name (Print/Type) Kent N. Stone  
Signature Kent N. Stone

Registration No. (Attorney/Agent) 31,883

## Complete (if applicable)

Telephone (216) 433-8858  
Date 9/25/2001

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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No. 437 1166 438 5545 on this  
25 day of September 2001.  
Kent N. Stone

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<b>REQUEST AND CERTIFICATION UNDER 35 U.S.C. 122(b)(2)(B)(i)</b>	First Named Inventor	Powell
	Title	Method for Growing Low-Defect Single Crystal Heteroepitaxial Films
	Atty Docket Number	LEW 17,186-1

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. I hereby request that the attached application not be published under 35 U.S.C. 122(b).

September 25, 2001  
Date

Kent N. Stone  
Signature

Kent N. Stone

Typed or printed name

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing**.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

Burden Hour Statement: This collection of information is required by 37 CFR 1.213(a). The information is used by the public to request that an application not be published under 35 U.S.C. 122(b) (and the PTO to process that request). Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 6 minutes to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington DC 20231

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No. ET 1166 43955 US on this  
25 day of September, 2001.

Kent N. Stone  
Kent N. Stone

105260-09259560

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Powell, et al

Serial No.: (Not yet assigned)

Art Unit: (not yet assigned)

Filed: (herewith)

Examiner: (not yet assigned)

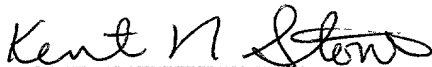
Title: Method for Growing Low-Defect Single Crystal Heteroepitaxial Films

**CERTIFICATE OF MAILING UNDER 37 CFR 1.10(a)**

I certify that the attached correspondence consisting of:

- Application (80 pages, including 52 claims)
- Formal Drawings (38 sheets)
- NASA Form 1538- Declaration, Power of Attorney, and Petition
- PTO SB/05- Utility Patent Application Transmittal
- PTO SB/17- Fee Transmittal
- PTO SB/35- Non Publication Request
- Assignment of J. Anthony Powell and Philip G. Neudeck with 2 Recordation Forms
- Information Disclosure Statement, with PTO 1449 and prior art patents
- Mailing Receipt Card

is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" under Mailing Label Number **ET116643955US** in an envelope addressed to the Assistant Commissioner for Patents, Box: New Application , Washington D.C. 20231, on 25 September, 2001.



Kent N. Stone  
Attorney of Record  
Registration No. 31,883

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